

What is claimed is:

1. A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion if an output level of the reflected wave, after reaching or exceeding a first output level, has reached or exceeded a second output level higher than the first output level within a predetermined time.

2. A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion if an output level of the reflected wave that is higher than a predetermined level has not lasted continuously for a predetermined length of time.

3. A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion if the frequency of the reflected wave is outside a predetermined frequency range.

4. A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, comprising:

a first detector for detecting that an output level of the reflected wave, after reaching or

exceeding a first output level, has reached or exceeded a second output level higher than the first output level within a predetermined time;

a second detector for detecting that a maximum output in one cycle of the reflected wave that is higher than a predetermined level has not lasted continuously for a predetermined length of time; and

a third detector for detecting that the frequency of the reflected wave is outside a predetermined frequency range, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion when any one of the first, second, and third detectors has detected a signal.

5. A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, comprising:

a first detector for detecting that an output level of the reflected wave, after reaching or exceeding a first output level, has reached or exceeded a second output level higher than the first output level within a predetermined time; and

a second detector for detecting that a maximum output in one cycle of the reflected wave that is higher than a predetermined level has not lasted continuously for a predetermined length of time, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion when both of the first and second detectors have detected a signal.

6. A vehicle-mounted intrusion detection apparatus for detecting an intrusion into a vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, comprising:

a first detector for detecting that a maximum output in one cycle of the reflected wave that is

higher than a predetermined level has not lasted continuously for a predetermined length of time; and  
a second detector for detecting that the frequency of the reflected wave is outside a predetermined frequency range, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion when both of the first and second detectors have detected a signal.

7. A vehicle equipped with a vehicle-mounted intrusion detection apparatus for detecting an intrusion into the vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion if an output level of the reflected wave, after reaching or exceeding a first output level, has reached or exceeded a second output level higher than the first output level within a predetermined time.

8. A vehicle equipped with a vehicle-mounted intrusion detection apparatus for detecting an intrusion into the vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion if an output level of the reflected wave that is higher than a predetermined level has not lasted continuously for a predetermined length of time.

9. A vehicle equipped with a vehicle-mounted intrusion detection apparatus for detecting an intrusion into the vehicle based on a wave transmitted inside the vehicle and reflected from an object located inside the vehicle, wherein

the vehicle-mounted intrusion detection apparatus is set so as not to recognize the reflected wave as indicating an intrusion if the frequency of the reflected wave is outside a predetermined frequency range.